UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/656,639	09/05/2003	Paul Durrant	SUNMP438	8119

32291 7590 02/05/2008	**EXAMINER**
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ART UNIT	PAPER NUMBER
2185	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Advisory Action **Before the Filing of an Appeal Brief**	10/656,639	DURRANT, PAUL
	Examiner	**Art Unit**	
	Yaima Campos	2185	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED <u>21 January 2008</u> FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

  a) ☒ The period for reply expires <u>3</u> months from the mailing date of the final rejection.

  b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

    Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

<u>NOTICE OF APPEAL</u>

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

<u>AMENDMENTS</u>

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will <u>not</u> be entered because

  (a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

  (b) ☐ They raise the issue of new matter (see NOTE below);

  (c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

  (d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

    NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☒ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

  The status of the claim(s) is (or will be) as follows:

  Claim(s) allowed: _____.

  Claim(s) objected to: _____.

  Claim(s) rejected: <u>1-5,10-12,14,16,17,20,22,24-27,29,31-37 and 39</u>.

  Claim(s) withdrawn from consideration: _____.

<u>AFFIDAVIT OR OTHER EVIDENCE</u>

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will <u>not</u> be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will <u>not</u> be entered because the affidavit or other evidence failed to overcome <u>all</u> rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

<u>REQUEST FOR RECONSIDERATION/OTHER</u>

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:

_____

12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-303 (Rev. 08-06)   Advisory Action Before the Filing of an Appeal Brief   Part of Paper No. 20080201

Continuation of 11. does NOT place the application in condition for allowance because:
NOTE
      The Examiner has not entered this amendment as it is Non-Compliant under (37 CFR 1.121).
      Applicant should also note that if applicant intends to make any correction in order to have this Amendment entered, claim 34 should also be corrected to indicate a proper independent/dependent claim upon which it depends as claim 34 currently depends on itself.
FIRST POINT OF ARGUMENT
In response to Applicant's remark that there is no motivation to combine Tetrick and Fujihira (Page 9); the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Tetrick and Fujihira are directed to and involved memory access and control; more specifically, transferring data from one memory location to another. Tetrick does not disclose expressly, the first controller monitoring operation of the processor to terminate the transmission of the data to the second random access memory location, during transmission of the quantity thereto, in response to the processor generating a write request to the second random memory location; however this is taught by Fujihira wherein Fujihira discloses ["according to the direct memory access controller of the present invention, it is possible to make a normal termination during a direct memory access transfer regardless of whether or not a memory involved in the direct memory access transfer has a function of generating a normal termination request signal. Further the normal termination request signal can be made at an arbitrary timing" (Col. 2, lines 6-28)]; thereby creating more efficient transfer of data between two memory locations.
SECOND POINT OF ARGUMENT
      Regarding Applicant's remark that the references to Fujihira and Tetrick are not combinable because the references teach away from their combination (Page 10); the Examiner respectfully disagrees and would like to point out that the combination of Fujihira and Tetrick disclose the limitations required by the claims as expressed in the Final Office Action mailed on October 19, 2007 and explained bellow.
THIRD POINT OF ARGUMENT
      In response to Applicant's remark that "Fujihira teaches to interrupt the memory transfer by making a write operation to a register 18 in the data handler (see Fig. 3). Register 18 is not part of memory, and it is not the destination address for the memory transfer. Applicant claims terminating the transmission of data when the processor generates a write request to the second memory location, and not to a register" (Page 10); the Examiner has fully considered this argument, but it is not persuasive.
      The combination of Tetrick and Fujihira discloses "the transmission of data when the processor generates a write request to the second memory location" as Fujihira discloses ["The present invention generally related to direct memory access controllers, and more particularly to a direct memory access controller which controls a direct memory access between an input/output control unit and a memory or between two memories" (Col. 1, lines 6-10) wherein "this DMA transfer is controlled by the DMAC 1 so that the DMA transfer takes place during a time when the CPU 2 does not make access to the system bus 6" (Col. 1, lines 27-33). Also see "during the DMA transfer between two memories, it is possible to make a normal interruption of the DMA transfer as if the interrupt request signal DONE is generated, by making a write operation with respect to the register 18 from the CPU 50" (Col. 6, lines 13-21; Col. 5, lines 49-64; Figure 5 and related text) wherein, it is well known in the art that a register comprises a high speed memory; therefore, Examiner interprets the second memory location to comprise the combination of, for example, any of memories 4 and 5 and register 18; thereby, having memory 18 as part of a second memory location and terminating transmission of data from a first memory location to a second memory location when the CPU/processor generates a write request to the second memory location]. Furthermore, Applicant should note that Examiners interpretation is deemed proper as it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.
FOURTH POINT OF ARGUMENT
      In response to Applicant's remark that the combination of Tetrick and Fujihira does not disclose "that the data is copied form the first random access memory location to the second random access memory location by an internal memory transfer, without traveling over the data communications facility" as "Tetrick does not teach a memory transfer where the data does not travel over the data communications facility (aka bus). Applicant asserts that transferring data without traveling over the data communications facility was not a known technique at the time, therefore, Tetrick does not suggest the incorporated subject matter" and that "it appears that the Examiner has relied on an inherency argument regarding the above emphasized claim limitations" (Page 11); the Examiner has fully considered this argument, however, it is not persuasive.
      First, the Examiner would like to point out that Applicant's Specification discloses "Therefore, in accordance with one embodiment of the present invention, there is provided a computer system including a processor, a controller, and a data communications facility interconnecting the processor and controller. The system further includes a memory that has multiple locations for storing data. The controller is responsive to a single command received from the processor to copy data from a first memory location to a second memory location. The single command specifies the first and second memory locations... The memory is typically coupled to the data communications facility by a memory controller (and may be integrated into the same device as the memory controller). Assuming that the first and second memory locations are coupled to the same memory controller, the copy command can be implemented purely internally to that unit, without any need for the data to travel on the data communications facility. This then maximises the bandwidth available to other users of the data communications facility" (Specification, Page 4, lines 21-28 and Page 5, lines 15-21) which is clearly taught by Tetrick as ["by performing operations that were typically performed through the execution of code in the processor 101, the memory interface 150 frees up CPU time in the processor 101 for executing application code. The memory interface 150 increases parallelism in the computer system 100 by allowing operations to be performed on the memory 113 independent of the processor 101" (Col. 2, lines 60-67) wherein "the memory interface 150 operates to copy a data structure from a first location in the memory 113 to a second location in the memory 113 when a memory-to-memory copy is requested" (Col. 3, lines 4-7) wherein "memory interface 150 operates to copy a data structure at a first location in the memory 113 (shown in FIG. 1) to a second location in the memory 113. Memory interface 150 includes a plurality of resource units 410-413. Each of the resource units 410-413 has a corresponding register file 420-

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423... The register files 420-423 are used by the resource units 410-413 to store information regarding a data structure at a first location in the memory 113 and a second location in the memory 113 where the data structure is to be copied" (Figures 1 and 4 and related text)]; therefore, disclosing an internal memory transfer without traveling over the data communications facility.

FIFTH POINT OF ARGUMENT

Regarding Applicant's remark that the combination of Tetrick, Fujihira and Garret does not disclose "that said first controller transmits an acknowledgement of said command back to the processor, and that the processor is responsive to a failure to receive said acknowledgement within a predetermined time-out period to perform said copy operation by issuing separate read and write commands" as in Garret "host always waits for the status "command not completed" in this case, to proceed. There is not suggestion in Garret that the host will proceed after a failure to receive said acknowledgement within a predetermined time-out period. Therefore, a system that waits for a status result, as in Garret, does not suggest a system that proceeds after a predetermined time-out period" (Page 12); the Examiner respectfully disagrees.

The claims require "that said first controller transmits an acknowledgement of said command back to the processor, and that the processor is responsive to a failure to receive said acknowledgement within a predetermined time-out period to perform said copy operation by issuing separate read and write commands" wherein said claimed acknowledgement comprises an acknowledgement specifying the copy command is being done (Specification, Page 13, lines 9-15); however, in Garret, when the copy command is not being done, the controller informs the processor so within a predetermined time-out period by returning a command not completed so that the processor performs copy operation by issuing separate read and write commands as ["the controller returns a command not completed back to the host computer and the host computer can either try the operation again, or transfer the data using a prior art command sequence" (Columns 3-4, lines 66-67 and 1-3) where the "prior art command sequence" involves "reading data from one disk drive unit into its own memory and then writing the data from its own memory to a second disk drive unit" (Column 1, lines 14-16)]; therefore, the processor failing to receive an acknowledgement indicating the copy command is being completed, within a predetermined time-period (which includes any time period); performs said copy operation by issuing separate read and write commands, as claimed.

SANJIV SHAH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

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Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No.	Applicant(s)
	10/656,639	DURRANT, PAUL
	Examiner	Art Unit	
	Yaima Campos	2185	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on <u>21 January 2008</u> is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

☐ 1. Amendments to the specification:
    ☐ A. Amended paragraph(s) do not include markings.
    ☐ B. New paragraph(s) should not be underlined.
    ☐ C. Other _____.

☐ 2. Abstract:
    ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
    ☐ B. Other _____.

☐ 3. Amendments to the drawings:
    ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
    ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
    ☐ C. Other _____.

☒ 4. Amendments to the claims:
    ☐ A. A complete listing of all of the claims is not present.
    ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
    ☐ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
    ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
    ☒ E. Other: <u>See Continuation Sheet</u>.

☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4):
_____

For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period** if the non-compliant amendment is an after-final amendment or an amendment filed after allowance. If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **one month**, or thirty (30) days, whichever is longer, from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a *Quayle* action. If any of above boxes 1. to 4. are checked, the correction required is only the **corrected section** of the non-compliant amendment in compliance with 37 CFR 1.121.

    <u>Extensions of time</u> are available under 37 CFR 1.136(a) <u>only</u> if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

    <u>Failure to timely respond</u> to this notice will result in:
        Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or
        Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

_____   _____
Legal Instruments Examiner (LIE), if applicable   Telephone No.

Continuation of 4(e) Other: Claim 31 has not been provided with the proper status identifier as claim 31 is currently amended and stands as (Currently Amended) and its status identifer reads (Previously presented). Appropriate correction is required.

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TECHNOLOGY CENTER 2100